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| APPLICATION NO.          | FILING DATE                   | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--------------------------|-------------------------------|----------------------|---------------------|------------------|
| 10/648,384               | 08/27/2003                    | Tae-Wan Choi         | RPL-0006REI         | 3800             |
| 34610<br>KED & ASSOC     | 7590 12/16/200<br>CIATES, LLP | EXAMINER             |                     |                  |
| P.O. Box 221200          |                               |                      | PUNNOOSE, ROY M     |                  |
| Chantilly, VA 20153-1200 |                               |                      | ART UNIT            | PAPER NUMBER     |
|                          |                               |                      | 2886                |                  |
|                          |                               |                      |                     |                  |
|                          |                               |                      | MAIL DATE           | DELIVERY MODE    |
|                          |                               |                      | 12/16/2009          | PAPER            |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Application No.                                                                                                                                                                                                   | Applicant(s)      |  |  |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--|--|--|--|
| Office Action Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 10/648,384                                                                                                                                                                                                        | CHOI ET AL.       |  |  |  |  |
| Office Action Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Examiner                                                                                                                                                                                                          | Art Unit          |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ROY PUNNOOSE                                                                                                                                                                                                      | 2886              |  |  |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address<br>Period for Reply                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                   |                   |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). |                                                                                                                                                                                                                   |                   |  |  |  |  |
| Status                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                   |                   |  |  |  |  |
| 1) Passansive to communication(s) filed on 03 A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ugust 2000                                                                                                                                                                                                        |                   |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Responsive to communication(s) filed on <u>03 August 2009</u> .  This action is <b>FINAL</b> 2b) This action is non final.                                                                                        |                   |  |  |  |  |
| ·                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <i>,</i> —                                                                                                                                                                                                        |                   |  |  |  |  |
| •                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. |                   |  |  |  |  |
| closed in accordance with the practice under £                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | x parte Quayle, 1935 C.D. 11, 45                                                                                                                                                                                  | 3 O.G. 213.       |  |  |  |  |
| Disposition of Claims                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                   |                   |  |  |  |  |
| 4) 🛛 Claim(s) 23. 25-27. 33-38. 41-42. 45. 60-72 an                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 4)⊠ Claim(s) <u>23, 25-27, 33-38, 41-42, 45, 60-72 and 77-80</u> is/are pending in the application.                                                                                                               |                   |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 4a) Of the above claim(s) is/are withdrawn from consideration.                                                                                                                                                    |                   |  |  |  |  |
| 5) Claim(s) is/are allowed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                   |                   |  |  |  |  |
| 6) Claim(s) is/are rejected.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ·                                                                                                                                                                                                                 |                   |  |  |  |  |
| · · · · — · · · · — · · · · · · · · ·                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                   |                   |  |  |  |  |
| ·                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Claim(s) 23,25-27,33-38,41,42,45,60-72 and 77-80 is/are objected to.                                                                                                                                              |                   |  |  |  |  |
| 8) Claim(s) are subject to restriction and/or election requirement.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                   |                   |  |  |  |  |
| Application Papers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                   |                   |  |  |  |  |
| 9)☐ The specification is objected to by the Examiner.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                   |                   |  |  |  |  |
| 10)⊠ The drawing(s) filed on <u>27 May 2008</u> is/are: a)⊠ accepted or b)□ objected to by the Examiner.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                   |                   |  |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                   |                   |  |  |  |  |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                   |                   |  |  |  |  |
| 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                   |                   |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                   |                   |  |  |  |  |
| Priority under 35 U.S.C. § 119                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                   |                   |  |  |  |  |
| <ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No. 09/247,866.</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                   |                   |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                   |                   |  |  |  |  |
| application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                   |                   |  |  |  |  |
| * See the attached detailed Office action for a list of the certified copies not received.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                   |                   |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                   |                   |  |  |  |  |
| Attachment(s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                   |                   |  |  |  |  |
| 1) Notice of References Cited (PTO-892)  4) Interview Summary (PTO-413)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                   |                   |  |  |  |  |
| 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Paper No(s)/Mail Da                                                                                                                                                                                               | te                |  |  |  |  |
| Information Disclosure Statement(s) (PTO/SB/08)     Paper No(s)/Mail Date                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 5)  Notice of Informal P 6)  Other:                                                                                                                                                                               | atent Application |  |  |  |  |

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#### **DETAILED ACTION**

#### Response to Amendment

1. Applicant's amendment filed on 08/03/2009 is acknowledged. The applicant has cancelled claims 21-22, 24, 28-32, 39-40, 43-44 and 46 in response to the previous office action. Claims 1-20, 47-59, 73-76 and 81-84 have been previously cancelled by the applicant. Claims 23, 25-27, 33-38, 41-42, 45, 60-72 and 77-80 are pending in the application.

## Claim Objections

- 2. Claim 41 is objected to because it is dependent on cancelled claim 21.
- 3. Claim 42 is objected to because it depends on objected claim 41.
- 4. Claims 23, 25-27, 33-38, 41-42, 45, 60-72 and 77-80 are objected to because they are either not underlined, or not fully underlined. Applicant is reminded that the **amendments must** be made relative to the patent.

Further, for any claim changed by the amendment paper, a parenthetical expression "amended," "twice amended," etc., should follow the claim number. Each changed patent claim and each added claim must include markings pursuant to 37 CFR § 1.173 (d), except that a patent claim or added claim should be canceled by a statement canceling the claim without presentation of the text of the claim. **Please refer to 37 CFR § 1.173 for guidance on Reissue amendments.** Appropriate corrections are required.

## Ex parte Quayle

This application is in condition for allowance except for the following <u>formal matters</u>:
 Please see numbered paragraphs 2-4 above.

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Prosecution on the merits is closed in accordance with the practice under *Ex parte Ouavle*, 25 USPO 74, 453 O.G. 213, (Comm'r Pat. 1935).

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

# Contact/Status Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Roy M. Punnoose** whose telephone number is **(571)272-2427**. The examiner can normally be reached on 9:30 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Tarifur R. Chowdhury** can be reached on **571-272-2287**. The **Fax** number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roy M. Punnoose/ Primary Examiner Art Unit 2886